

BEXIS 2.3.0

Installation Manual

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1. BExIS Package

- First download the BEXIS 2.3.0 package from <http://fusion.cs.uni-jena.de/bexis/download/current-release>
- Unzip BEXIS 2.3.0
- Usage of contained files and folders is described in section 4.

2. Additional Software / Prerequisites

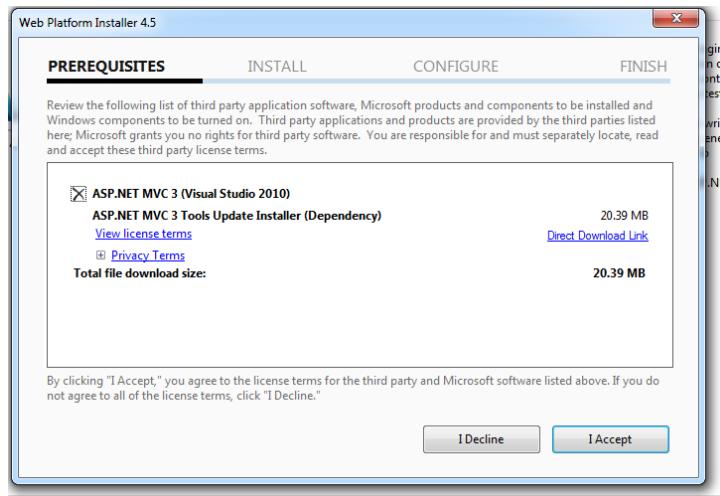
The following software is needed to run the BEXIS web application. If they are installed on your computer already please jump to section 3. If not, please download Prerequisites.zip from: <http://fusion.cs.uni-jena.de/bexis/download/current-release> and unzip the file.

2.1. .NET Framework 4.0

- Open folder Prerequisites\.NET 4 and start “**dotNetFx40_Full_x86_x64.exe**” as admin
- Or download it here: [Download .net Framework 4.0](#)
- follow the steps in the installation window

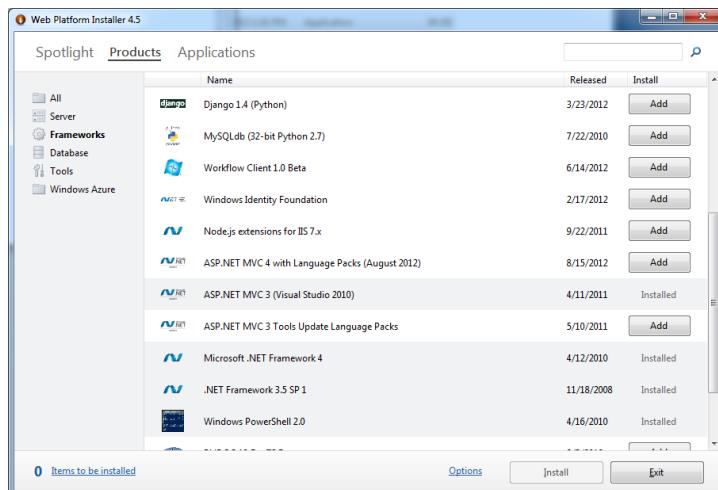
2.2. ASP.NET MVC 3

- Open folder Prerequisites\ASP.NetMVC3 and start “**MVC3.exe**” as admin
- Or download it here: [Download ASP.NET MVC 3](#)
- follow the steps in the installation window



1 First step shows the prerequisites of mvc3

- After the Prerequisites window another window with some installation options will appear
- Go to **Products**
- Select **Frameworks**
- Here you need to find **MVC3** and **.NET 4**
- If this not installed click on the add button and start the installation



2.3. Database System

BEXIS 2 needs a database management system to be available on your server. You are free to choose between PostgreSQL and IBM DB2 Express-C. If not available already please follow **one** of the installation instructions below.

2.3.1. PostgreSQL

2.3.1.1. Download PostgreSQL

Depending on your hardware and your installed operating system select either the 32bit or 64bit version from the following link: <http://www.enterprisedb.com/products-services-training/pgdownload#windows>

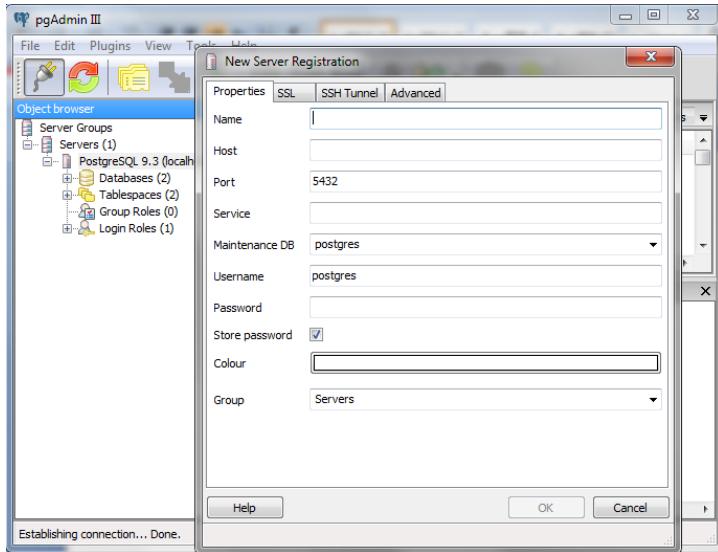
2.3.1.2. Installation of PostgreSQL

The installation of PostgreSQL is easy. It is enough to run the Installer and follow the steps. During installation, when asked, please

- enter "postgres" as user
- enter "1" as password
- enter "5432" as port number.

Launch Stack Builder that is asked in the last step is not recommended.

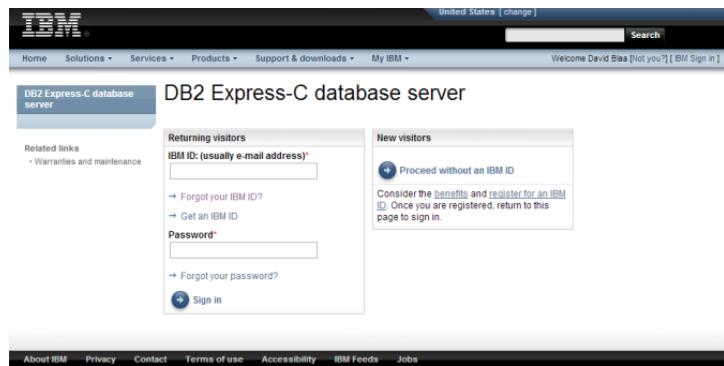
When the installation is finished, run PgAdmin and add a connection to the server that you want to work on it.



2.3.2. DB2 Express-C

2.3.2.1. Download DB2 Express-C

Depending on your hardware and your installed OS select either the 32bit or 64bit version from the following link: [Download DB2 Express-C](#)

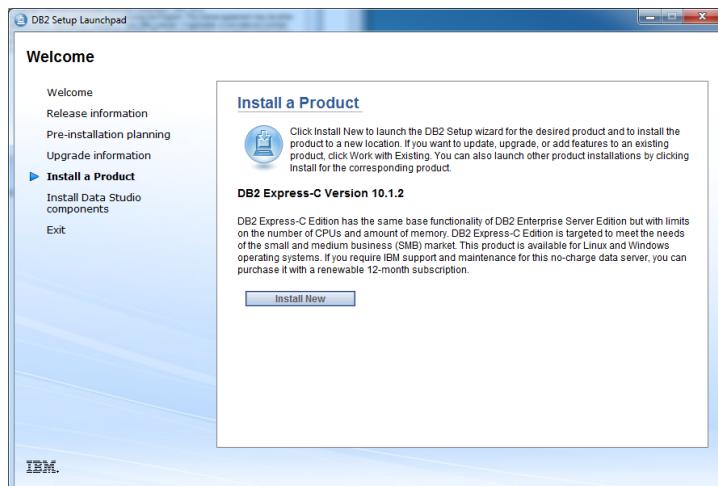


[Download DB2 Express-C](#)

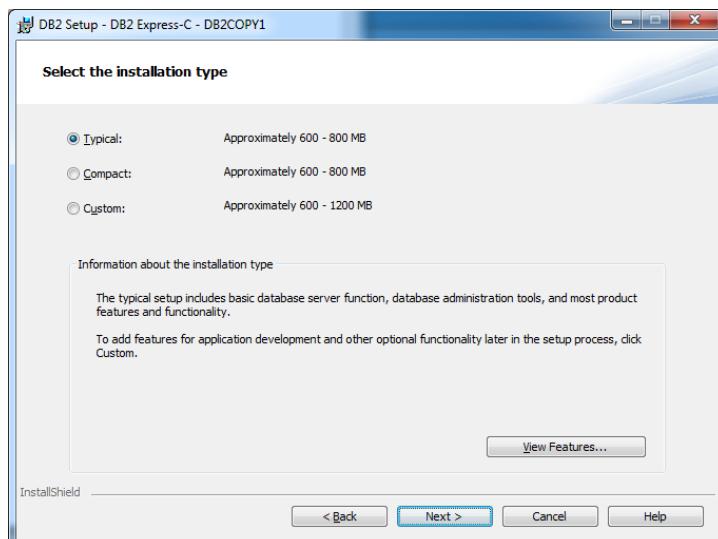
Log in with the IBM user account. If you have no IBM user account, you need to create one.

2.3.2.2. Installation of DB2 Express-C

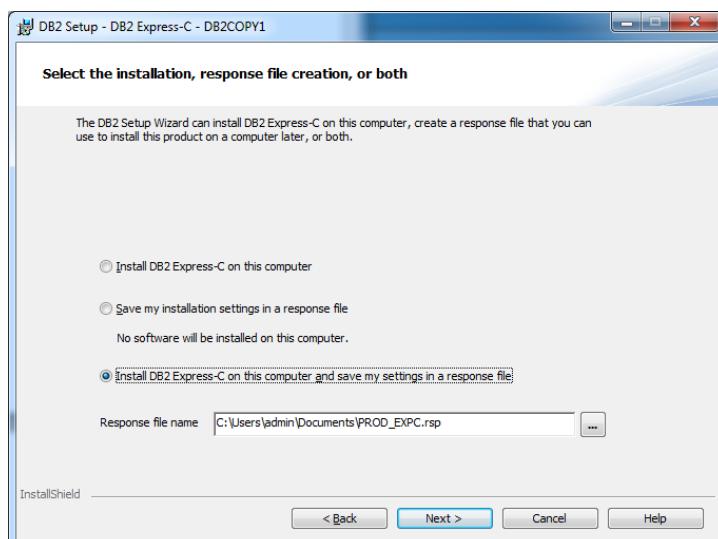
- Execute the downloaded installer file (*.exe).



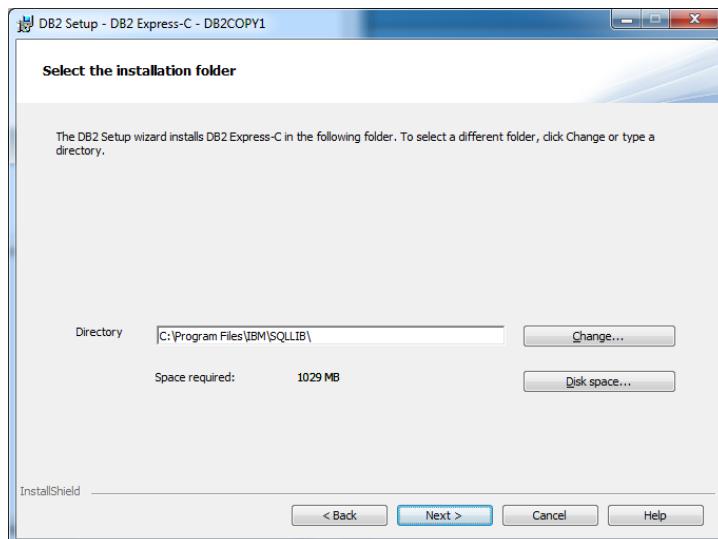
- Choose the installation type – “typical” is appropriate in most cases



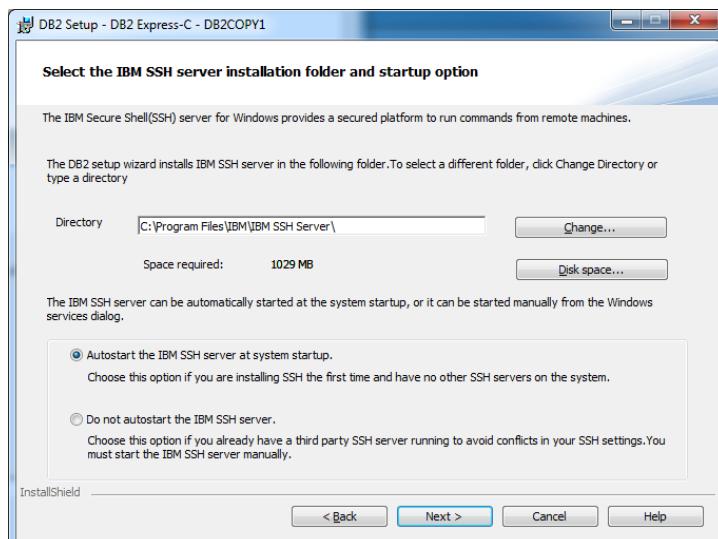
- Select Installation or response file or both



- Select the installation folder (use the default path)

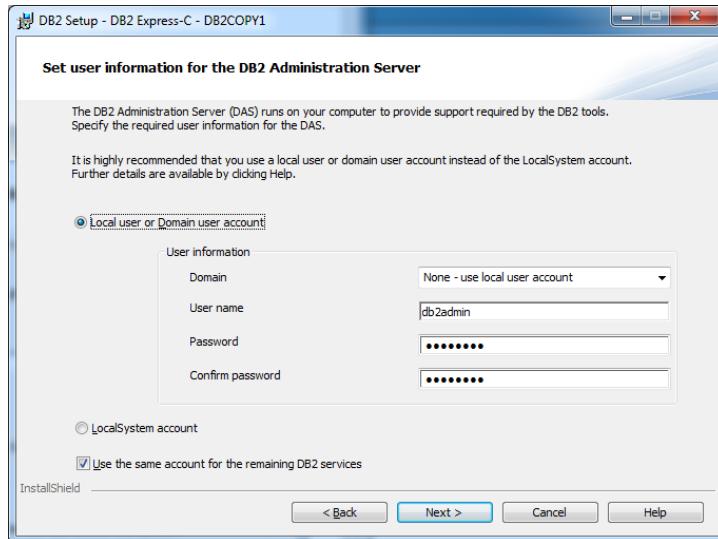


- Use default

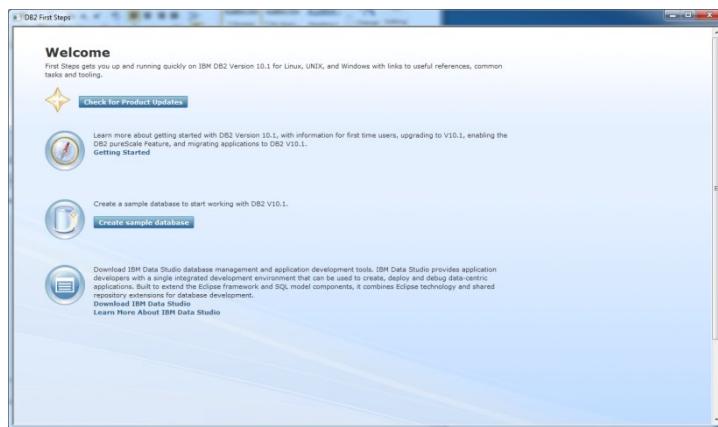


- Define the db2admin password

Please make sure you recall the password later on!

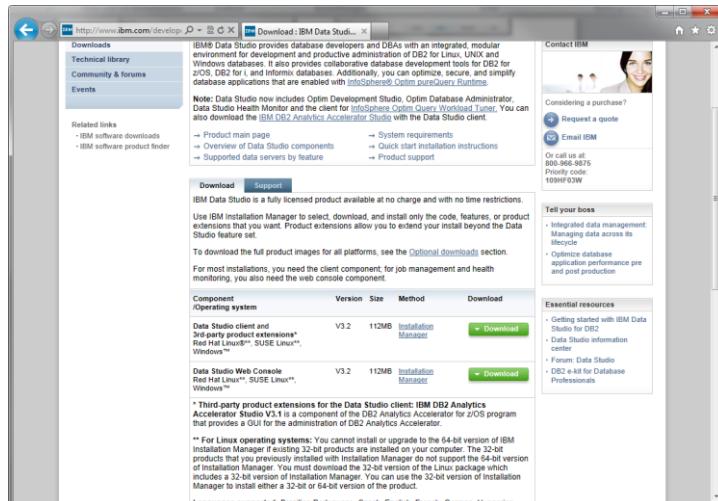


- After the installation you should see the this screen



2.3.2.3. Install IBM Data Studio

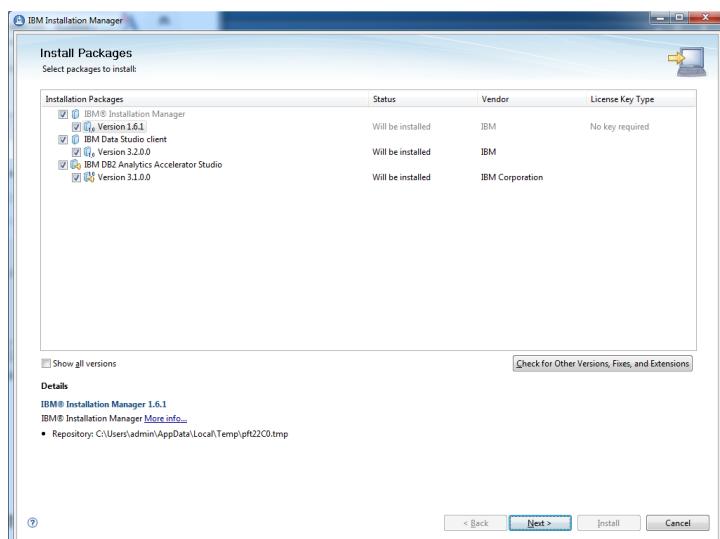
- Select “Download IBM Data Studio”



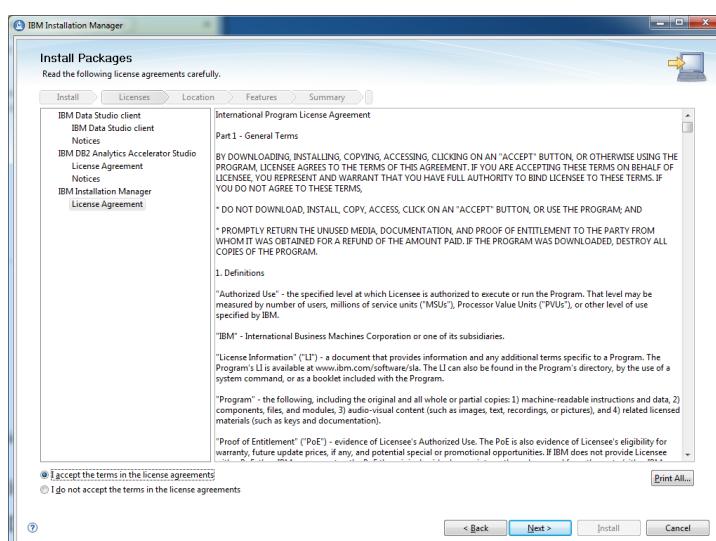
- Select the first one: **Data Studio client** and **3rd-party product extensions*** Red Hat Linux®**,
SUSE Linux**, Windows™

OR

- Start the installer shipped with the Prerequisites.zip file.
 - o Open folder “Prerequisites\IBM Data Studio”,
 - o Start **IBMMIM_win32.exe** as **admin**
- Password from the IBM Account is required
- The IBM Installation Manager
- Select all packages and click next



- Accept the license agreements



- Specify directories for
 - o Shared Resources
 - o Installation Manager
- Specify the directory for the IBM Data Studio
- Select a language

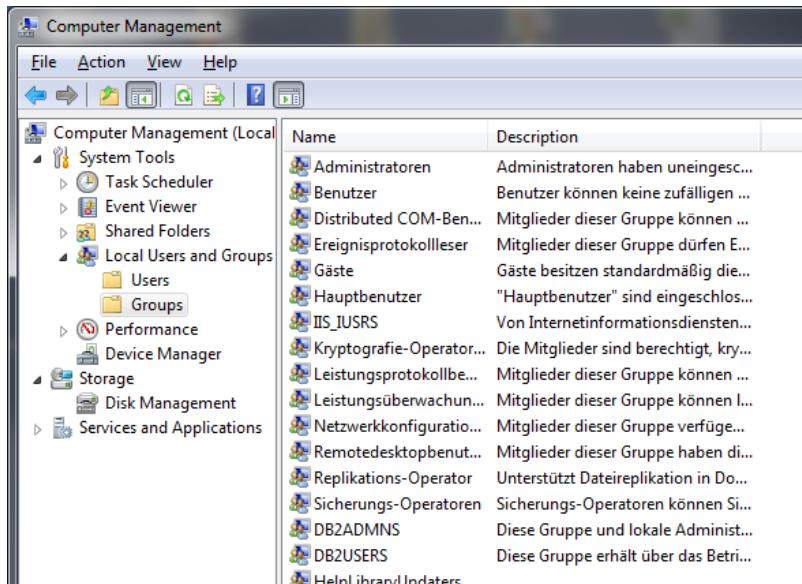
(default is ok)

(default is ok)

- Choose configuration of the help system (Access help from the Web)
- Start to install

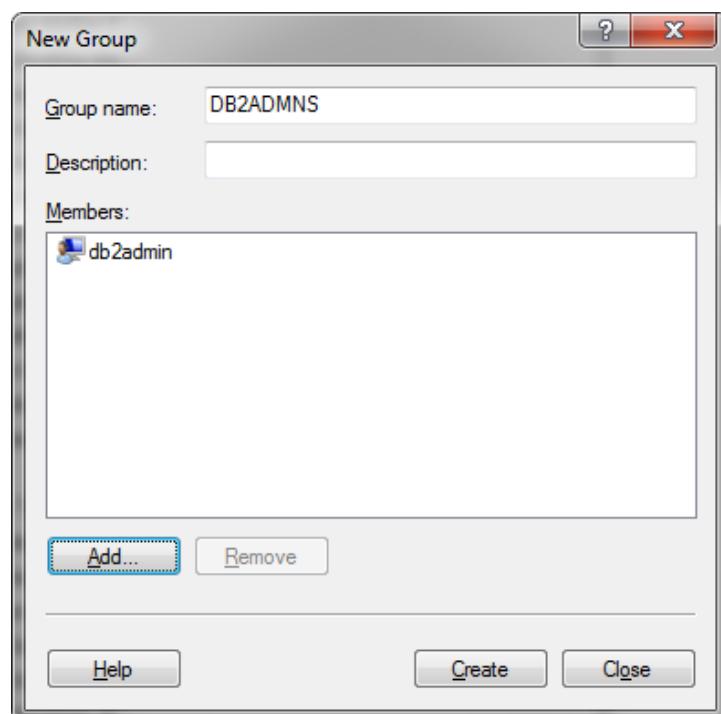
After the installation of DB2 and IBM Data Studio you need to check if the database groups (DB2ADMNS and DB2USERS) are registered:

- Control Panel/Administrative Tools/Computer Management / Local Users and Groups



Db2 Groups

- If not you need to create these groups
 - o Right click on groups and select new group
 - o First Group "DB2ADMNS" and add the db2admin to this group and select create



Create DB2ADMNS group

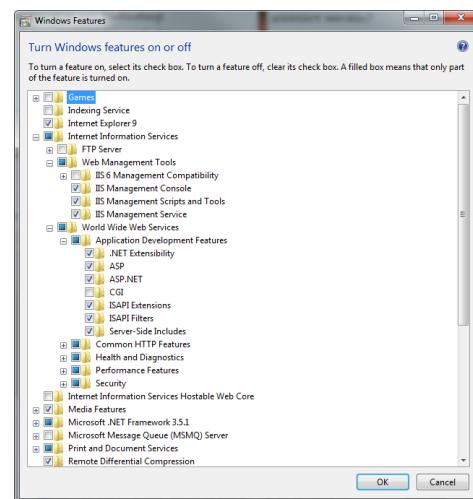
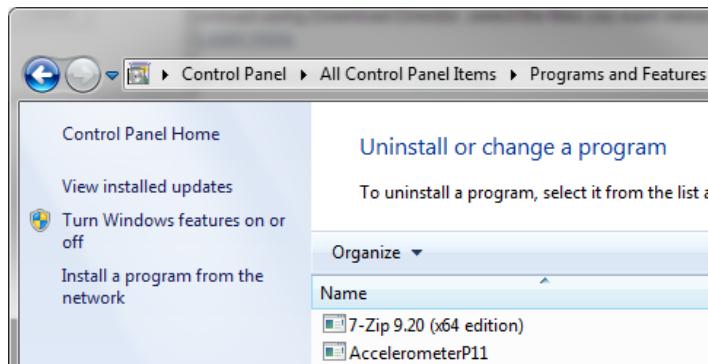
- Second Group "DB2Users"

3. Setup Internet Information Service (IIS)

IIS is needed to host a website on the server. If your IIS is already activated and .NET framework is registered move on to section 4. If you don't know if your IIS is activated or if .NET is registered, please follow the steps below.

3.1. Active IIS7

- Open Control Panel/Programs and Features,
- On the left side click the “Turn Windows features on/off” link.



- First select “Internet Information Service”(IIS) and open this node
- Open “Web Management Tools ” and select/tick:
 - o IIS Management Console
 - o IIS Management Scripts and Tools
 - o IIS Management Service
- Below IIS open “World Wide Web Services” / “Application Development Features” and select/tick:
 - o .Net Extensibility
 - o Asp
 - o Asp .NET
- Click “OK” Button

3.2. Register .Net Framework 4.0 in IIS

- o open cmd as administrator and go to folder:
 - %windir%\Microsoft.NET\Framework64\v4.0.30319\
 - or
 - %windir%\Microsoft.NET\Framework\v4.0.30319\
- o type here: aspnet_regiis.exeir

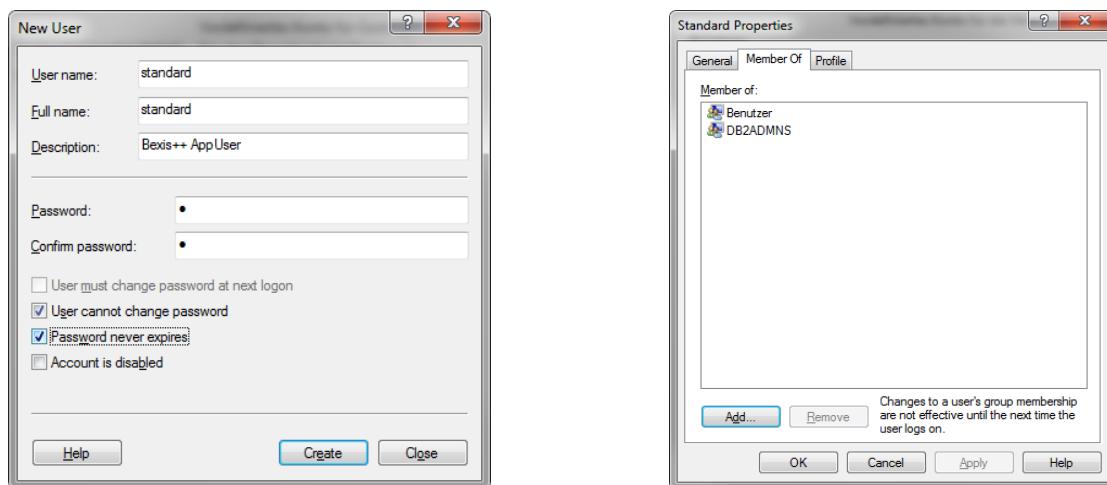
4. Deploy BEXIS web application

4.1. Configure server components

Perhaps some of the following configuration settings are already in place. But please check them out.

4.1.1. Create application user

- Open Control Panel\Administrative\Computer Management
- Select Local Users and Groups
- Select Users and right click it
- Open “**New User...**”:
 - o Add a user called „standard“
 - o Specify a password for your user
 - o Click “Create”



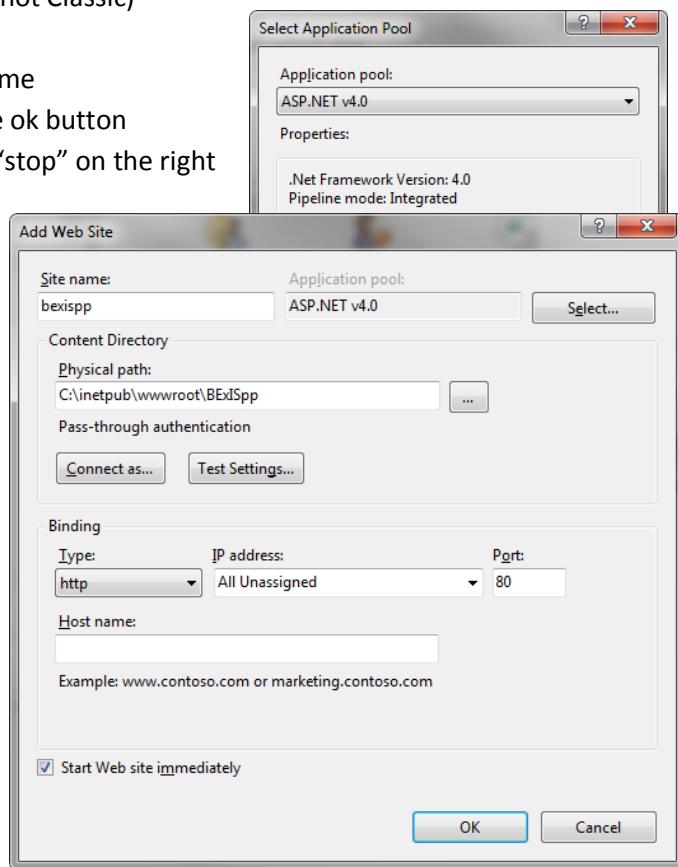
- The user must be a member of the group DB2ADMNS:
 - o Right click on standard user and open properties
 - o Select the “**Member Of**” tab
 - o Click “Add..”, Click “Advanced...”, Click “Find Now”
 - o Select “DB2ADMNS” Group and click “OK”

4.1.2. Configure IIS

- Configure application pool:
 - o Open IIS (Control Panel/Administrative Tools)
 - o Select **Application Pools** and right click in “**ASP .NET v4.0**” and select “**Set Application Pool Defaults...**”
 - o Change “**General-Enable 32-Bit Applications**” to “True”
 - o Change “**Process Model – Identity**” to “NetworkService”

4.1.3. Create Website

- Open IIS (Control Panel / Administrative Tools)
- Stop Default Website (Click it and choose “stop” on the right side)
- Create a new Website (right click on sites and choose Add Web Site)
- Select Application pool ASP .NET v4.0 (not Classic)
- Select physical path:
C:\inetpub\wwwroot\Your_Websitename
- Confirm your selections by pressing the ok button
- Stop your website (Click it and choose “stop” on the right side)

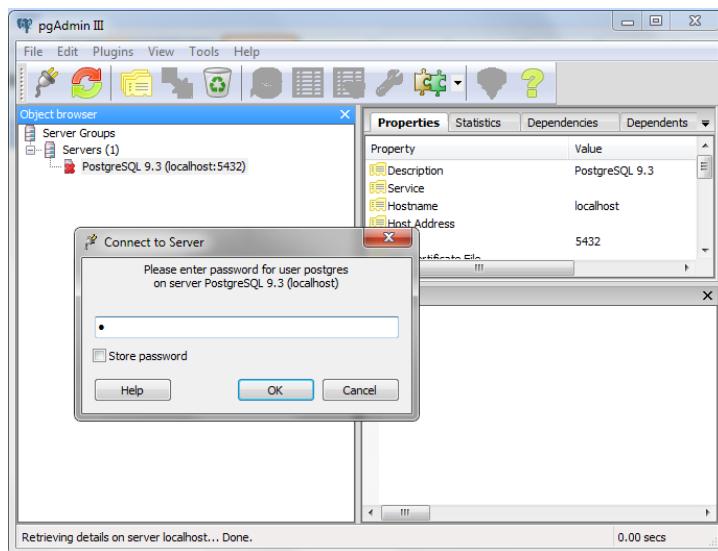


4.1.4. Create empty database

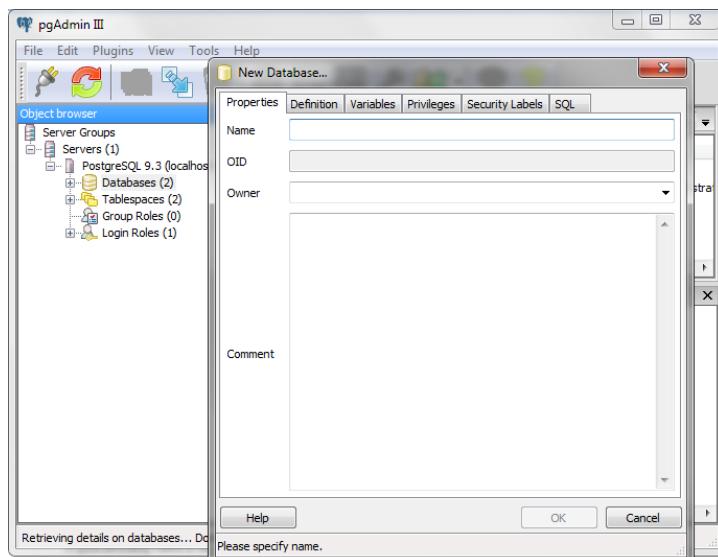
Depending on which database system is installed on your computer and you prefer to use, PostgreSQL or IBM DB2, you need to create an empty database before you are able to restore one of the two databases provided with the BEXIS installation package.

4.1.4.1. Create empty database on PostgreSQL

Open pgAdmin. Double click on the “PostgreSQL 9.3 (localhost: 5432)”. A popup window will open where you need to enter the password for user ‘postgres’. Please enter “1” as the password you defined when you installed PostgreSQL.



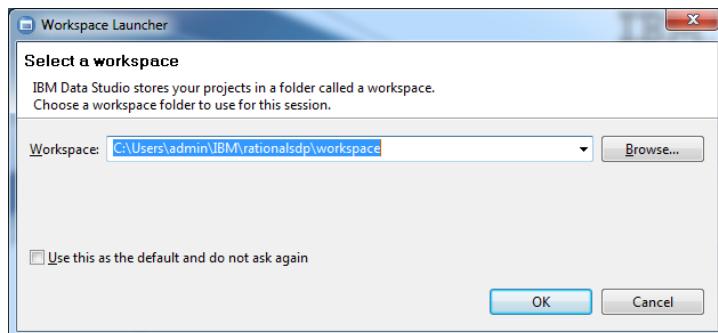
Then in the Object browser section, Right click on “Databases” node and create a new database. Enter “BExIS” as a database name.



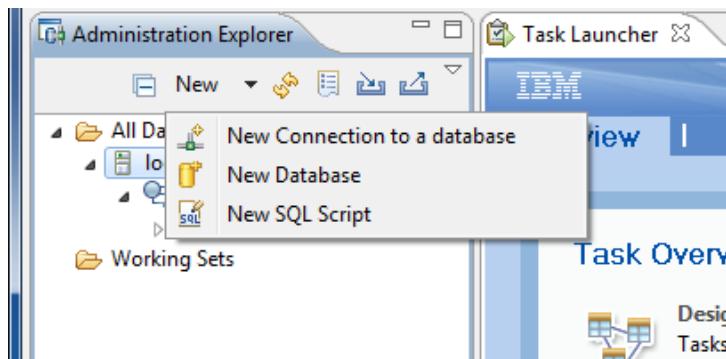
4.1.4.2. Create empty database on DB2

If you already have a database from a previous release you can skip this step.

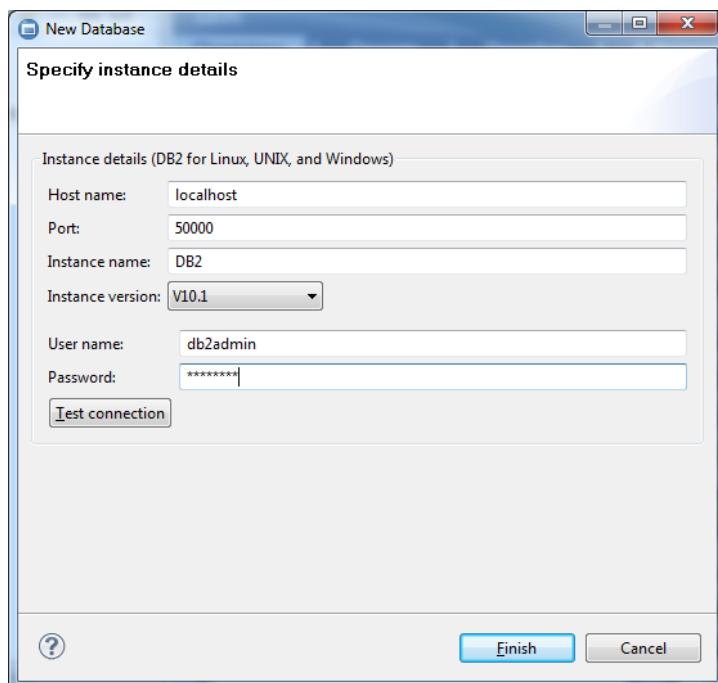
- Open IBM Data Studio as admin
- On first startup IBM Data Studio will ask for a workspace, use the selected one

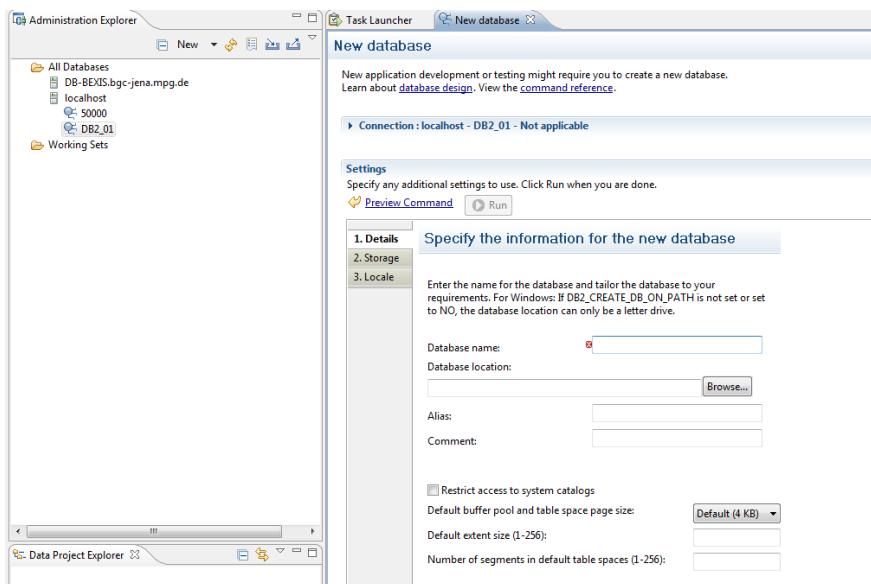


- On the left side you find all databases
- Click the dropdown button "New" in the Administration Explorer panel
- Select "New Database"

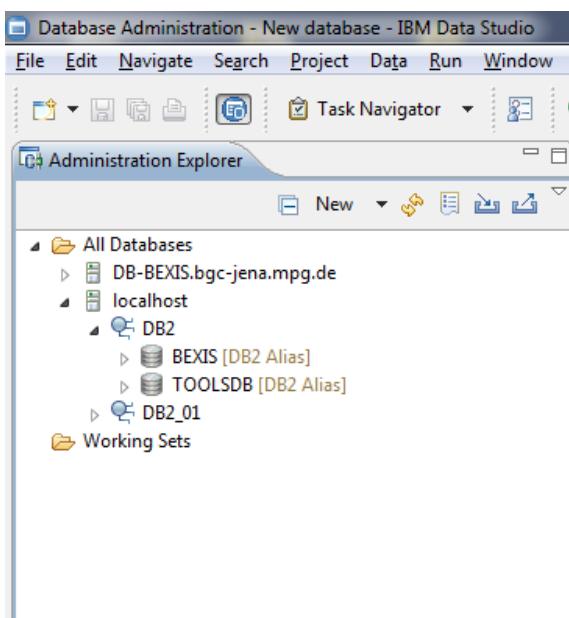


- Now connect to your instance
- Default Values
 - **Host Name:** localhost
 - **Port:** 50000
 - **Instance:** DB2
- Choose Version 10.1
- Add db2admin with password and test connection





- Choose a database name (e.g. BEXIS) and select “Run”
- Enter your db2admin password again
- After successful creation you will see the new database under your Instance in the left side



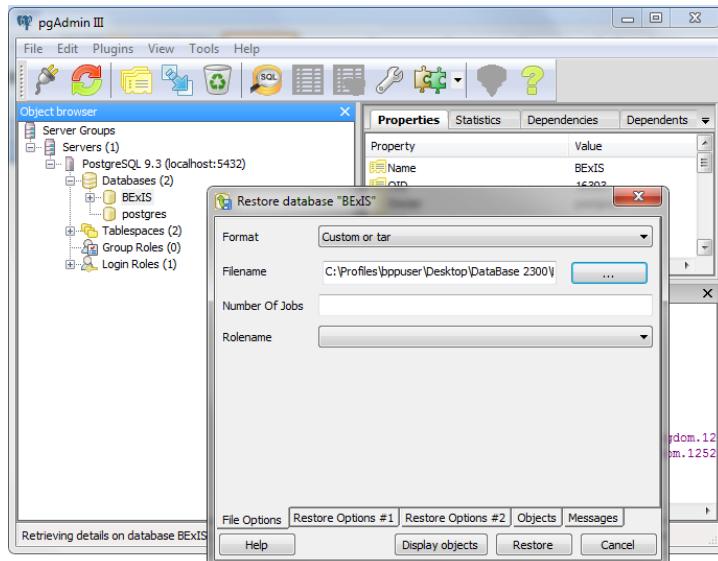
4.2. Install BEXIS package

4.2.1. Create database from backup

In your preferred database, you need to restore the empty database from a backup. In the package of installation you can find different database backup version for PostgreSQL or IBM DB2.

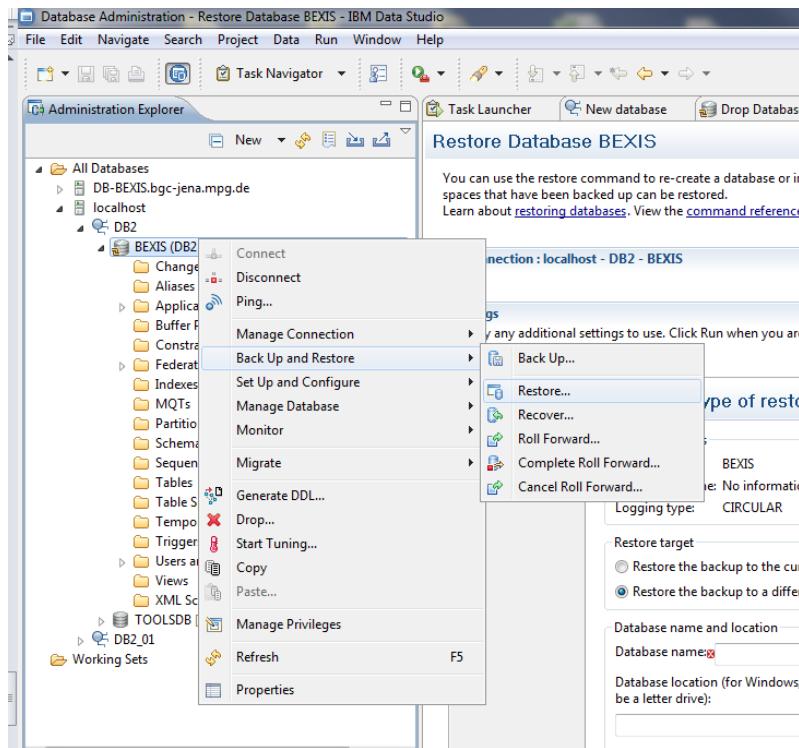
4.2.1.1. Create a PostgreSQL restored database

Open pgAdmin. Double click on the “PostgreSQL 9.3 (localhost: 5432)” and enter “1” as password. Open Database node. Right click on BExIS and click on “Restore”. As a “Filename” please enter the path and name of the backup file of the PostgreSQL database (file name: BPP230.backup).



4.2.1.2. Create a DB2 restored database

- Open IBM Data Studio
- Connect to your Database (right click on database Name and choose connect)
- Again right click on database Name and go to “Back Up and Restore” and select Restore



- Here you should see your selected database

Restore Database BEXIS

You can use the restore command to re-create a database or individual table spaces after a problem has occurred, such as media or storage failure, a power interruption, or an application failure. Only databases and table spaces that have been backed up can be restored.

Learn about [restoring databases](#). View the [command reference](#).

- For seed and sample backup go to your unzipped BExIS 2.3.0 package folder
 - o Choose file called "**BPP230.0.DB2.NODE0000.CATN0000.20140416152133.001**"
 - o **BPP230** – Database Name
 - o **20140416** – date of the Image
 - o **152133** – time of the image
- Go to "**Restore Objects**" and select in the "**Method for selecting a backup image**" Section "**Enter the backup image information manually**"
- Click on the Checkbox "**Backup is from another database**" and write the database name from the image "**R23SESA**" inside
- Select the date like this from the image
- Select the time like this from the image
- Click on the "**Add...**" Button
- Click on "**<Specify Backup location>**" and click the "**Browse...**" Button and select the Image file from the unzipped BExIS 2.3.0 package folder:

After this configuration it should look like the following screenshot:

- Select the “Run” Button

After a successful restoring you should have all tables of the schema “Standard”

Schema	Name	Log Mode	Partition Key	Perce...	Row Count	Primary Key	Partition ...	Regular Tables...	Index Tablespace...	LOB Tablespace	Data Capture
STANDARD	AGGREGATEFUNCTIONS	0	0	SQL120924102...				USERSPACE1			NONE
STANDARD	CLASSIFIERS	0	0	SQL120924102...				USERSPACE1			NONE
STANDARD	CONTENTDESCRIPTIONS	0	0	SQL120924102...				USERSPACE1			NONE
STANDARD	CONVERSIONMETHODS	0	0	SQL120924102...				USERSPACE1			NONE
STANDARD	DATACONTAINERS	0	53	SQL120924102...				USERSPACE1			NONE
STANDARD	DATACONTAINERS_A...	0	0	SQL120924102...				USERSPACE1			NONE
STANDARD	DATASETS	0	24	SQL120924102...				USERSPACE1			NONE
STANDARD	DATASTRUCTURES	0	7	SQL120924102...				USERSPACE1			NONE
STANDARD	DATASTRUCTURES_VIE...	0	0	SQL120924102...				USERSPACE1			NONE
STANDARD	DATATUPLES	0	133	SQL120924102...				USERSPACE1			NONE
STANDARD	DATATYPES	0	5	SQL120924102...				USERSPACE1			NONE
STANDARD	DATAVIEWS	0	0	SQL120924102...				USERSPACE1			NONE
STANDARD	EXPLAIN_ARGUMENT	0	0	SQL120924102...				USERSPACE1			NONE
STANDARD	EXPLAIN_DIAGNOSTIC	0	0	SQL120327145...				USERSPACE1			NONE
STANDARD	EXPLAIN_DIAGNOSTIC_...	0	0	SQL120327145...				USERSPACE1			NONE
STANDARD	EXPLAIN_INSTANCE	0	0	SQL120327145...				USERSPACE1			NONE
STANDARD	EXPLAIN_OBJECT	0	0	SQL120924102...				USERSPACE1			NONE
STANDARD	EXPLAIN_OPERATOR	0	0	SQL120924102...				USERSPACE1			NONE
STANDARD	EXPLAIN_PREDICATE	0	0	SQL120924102...				USERSPACE1			NONE
STANDARD	EXPLAIN_STATEMENT	0	0	SQL120327145...				USERSPACE1			NONE
STANDARD	EXPLAIN_TABLE	0	0	SQL120924102...				USERSPACE1			NONE
STANDARD	EXTENDEDPROPERTIES	0	0	SQL120924102...				USERSPACE1			NONE
STANDARD	GLOBALIZATIONINFOS	0	0	SQL120924102...				USERSPACE1			NONE
STANDARD	MATHOPERLOGIES	0	0	SQL120924102...				USERSPACE1			NONE
STANDARD	METHODOLOGIES	0	0	SQL120924102...				USERSPACE1			NONE
STANDARD	STRUCTUREDDATAVAR...	0	61	SQL120924102...				USERSPACE1			NONE
STANDARD	UNITS	0	1	SQL120924102...				USERSPACE1			NONE
STANDARD	UNITS_DATATYPES	0	1	SQL120924102...				USERSPACE1			NONE
STANDARD	VARIABLEPARAMETERU...	0	0	SQL120924102...				USERSPACE1			NONE
STANDARD	VIEWATTACHMENTS	0	0	SQL120924102...				USERSPACE1			NONE

4.2.2. Deploy Website

- Copy all files from the application folder (BPPR23_Website) of your unzipped BEXIS 2.3.0 package folder to C:\inetpub\wwwroot\Your_Websitename
- Copy the whole workspace folder (Workspace) from your unzipped BEXIS 2.3.0 package folder to C:\inetpub\wwwroot
- Copy the whole Data folder from your unzipped BEXIS 2.3.0 package folder to a place on your computer.
- open configuration file C:\inetpub\wwwroot\Your_Websitename\Web.config with a text editor:
 - o adapt connection string in section connection Strings
 - insert your database name
 - insert your application user ID (name)
 - insert your chosen user password
 - o check (and adapt) workspace path in section appSettings
 - o check (and adapt) workspace path in section appSettings
- The IIS_IUSRS user need modify permissions to the same folders and files.
 - o **BExISppTemplate_Clean.xlsx** under Workspace path\Modules\RPM\Template\
 - o **Lucene** folder under Workspace path \Modules\Search\
 - o **Data** folder under Data path

4.2.3. Start Website

- Open the IIS and select your Website
- Stop your website (Click it and choose “stop” on the right side)
- Open Browser and enter localhost

5. Hints

If you want the system to create all needed tables for you:

- Select your Website
- Go to the application settings and set “CreateDatabase” to “true”
- When you run the Website the database creates the tables
- **ATTENTION!! If you are working with an existing database with data inside the database will be cleared**
- After the first run, go to the application settings and set “CreateDatabase” to false

6. Errors

ERROR [08004][IBM] SQL30061

- Check if database exist. If not create this database
- If you run more than one instances of db2, you need to add another port number to the server name in the connection string
 - Localhost:50001

ERROR [08001][IBM] SQL30081n

- Please check if the Database Instance is running.
- If not, start the instance

ERROR HTTP-ERROR 403.14

- .Net is not registered for IIS 7
- Open the BEXIS 2.3.0 folder and start **aspnet_regiis.exe** as admin

ERROR HTTP- ERROR 404.2

- change apppool in IIS to integrated (asp.net 4)

ERROR SQL1159

- Initialization error with DB2 .NET Data Provider, reason code 10...
for user 'IIS APPPOOL\ASP.NET v4.0'
- has something to do with App pool identity. Set the app pool identity as "Network service", this group has already read access to C:\Program Files\IBM\SQLLIB\BIN
- Open **IIS**
Select **Application Pools** and right click in "**ASP .NET v4.0**" and select "**Set Application Pool Defaults...**"
- Process Model – Identity change to "**NetworkService**"